

# REMARKS

Claims 1-5, 7-17, and 19-41 are pending. Claims 6 and 18 have been canceled. New claims 27-41 have been added. Claims 1, 12, 14-17, 20-22, and 24-26 are rejected under 35 U.S.C. § 102(b). Claims 2-5, 13, 19, and 23 are rejected under 35 U.S.C. § 103(a). Claims 6-11 and 18 are objected to as depending from a rejected base claim.

The drawings are objected to under 37 C.F.R. § 1.83(a) for not illustrating the subject matter of claims 6-9. Referring to Figure 2 of the instant specification, original claim 1 recited "A method of controlling wireless communications between a first frequency hopping wireless communication device (S1) and a second frequency hopping wireless communication device (M), comprising: the first device (S1) sending to the second device (M) a first transmission on a first frequency (f7 at time period 2) specified by a frequency hopping pattern (f1, f3, f5, f7, f9, f11) associated with transmissions by the second device (M), said first frequency (f7) specified by the frequency hopping pattern for one of a plurality of nearest future transmissions from the second device to the first device; the second device receiving the first transmission and providing communication quality measurements respectively associated with receipt of the first transmission; and based on the communication quality measurements, the second device sending said one transmission to the first device on the first frequency (f7 at time period 7)." (annotations added).

Original claim 6 depended directly from claim 1 and added "The method of Claim 1, including the second device (M) sending a transmission to a third device (S2 on frequency f3 at time period 3) after said first transmission (S1 on frequency f7 at time period 2) and before said one transmission (M on frequency f7 at time period 7)." Original claim 7 recited "The method of Claim 6, including the third device (S2) sending a transmission to the second device (M on frequency f9 at time period 4) after said first transmission (time period 2) and before said one transmission (time period 7)." Original claim 8 recited "The method of Claim 7, including the second device (M) sending a transmission to a fourth device (S3 on frequency f5 at time period 5) after said first transmission (time period 2) and before said one transmission (time period 7)."

Original claim 9 recited "The method of Claim 8, including the fourth device (S3) sending a transmission to the second device (M on frequency f11 at time period 6) after said first transmission (time period 2) and before said one transmission (time period 7)." (annotations added). Thus, all the limitations of original claims 6-9 are shown in Figure 2. Subsequent amendments suggested by Examiner have not added any limitations. Thus, applicant requests withdrawal of Examiner's objection to the drawings under 37 C.F.R. § 1.83(a).

Examiner has objected to claims 1-9, 12, 14-18, 20-22, and 24-26 for informalities. Applicant has adopted Examiner's suggestions in the preceding claim amendments.

Claims 1, 12, 14-17, 20-22, and 24-26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Watanabe (U.S. Pat. No. 5,459,760). Claims 6-11 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claim 6 depended directly from claim 1. Independent claim 1 has been rewritten to include all the limitations of claim 6. Claim 6 has been canceled. Thus, applicant believes claims 1, 12, and 14 are patentable under 35 U.S.C. § 102(b).

Claim 18 depended directly from claim 15. Independent claims 15 and 20 have been rewritten to include all the limitations of claim 18. Claim 18 has been canceled. Thus, applicant believes claims 15-17, 20-22, and 24-26 are patentable under 35 U.S.C. § 102(b).

New claims 27-41 are added. Referring to Figure 2, independent claim 27 recites "A method of controlling wireless communications, comprising: determining a first frequency hopping pattern (f7, f13, ...); determining a second frequency hopping pattern (M pattern f1, f3, f5, f7, ...) different from the first frequency hopping pattern; sending a first transmission (time period 2) on a first frequency (f7) of the first frequency hopping pattern from a first device (S1) to a second device (M), wherein the first frequency (f7) is specified by the second frequency hopping pattern for one of a plurality of nearest future transmissions (time period 7) from the second device to the first device; receiving the first transmission and providing communication

quality measurements (Figure 8) at the second device; and sending said one of the plurality of nearest future transmissions from the second device to the first device on the first frequency of the second frequency hopping pattern in response to the communication quality measurements.” (annotations added).

Independent claim 30 recites “A method of controlling wireless communications, comprising: determining a first frequency hopping pattern (f7, f13, ...); sending a first transmission (time period 2) on a first frequency (f7) of the first frequency hopping pattern from a first device (S1) to a second device (M); receiving the first transmission and providing communication quality measurements (Figure 8) at the second device (M); selecting a channel coding rate in response to the communication quality measurements (page 14, line 16); and sending said one of the plurality of nearest future transmissions (time period 7) from the second device (M) to the first device (S1) on the first frequency (f7) in response to the step of selecting.” (annotations added).

Independent claim 34 recites “A method of controlling wireless communications, comprising: determining a first frequency hopping pattern (f7, f13, ...); sending a first transmission (time period 2) on a first frequency (f7) of the first frequency hopping pattern from a first device (S1) to a second device (M); receiving the first transmission and providing communication quality measurements (Figure 8) at the second device (M); selecting a packet length in response to the communication quality measurements (page 14, line 17); and sending said one of the plurality of nearest future transmissions (time period 7) from the second device (M) to the first device (S1) on the first frequency (f7) in response to the step of selecting.” (annotations added).

Referring to Figures 2 and 4, independent claim 38 recites “A method of controlling wireless communications, comprising: determining a first frequency hopping pattern (f7, f13, ...); sending a first transmission (time period 2) on a first frequency (f7) of the first frequency hopping pattern from a first device (S1) to a second device (M); receiving the first transmission and providing communication quality measurements (Figure 8) at the second device (M);

selecting a plurality of weighting coefficients (44 and page 9, lines 15-18) in response to the communication quality measurements; and transmitting over a plurality of antennas (47) said one of the plurality of nearest future transmissions (time period 7) from the second device (M) to the first device (S1) on the first frequency (f7) according to the plurality of weighting coefficients corresponding to the plurality of antennas, respectively." (annotations added). Applicant acknowledges Examiner's Official Notice that calculating weighting coefficients are well-known in the art. Applicant respectfully submits, however, that other elements required for *prima facie* obviousness are notably absent. For example, there is no teaching or suggestion to combine the teaching of Watanabe with Examiner's Official Notice in either reference or elsewhere apart from the instant specification.

Applicant acknowledges Examiner's rejection of depending claims 2-5, 13, 19, and 23 under 35 U.S.C. § 103(a). Applicant believes these rejections are moot in view of the present amendment.

In view of the foregoing, applicant respectfully requests reconsideration and allowance of claims 1-5, 7-17, and 19-41. If the Examiner finds any issue that is unresolved, please call applicant's attorney by dialing the telephone number printed below.

Respectfully submitted,



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